

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Applicants have amended claim 1 to recite that curing the two paint films at a temperature of 60-70°C for 10-25 minutes is to form a tackiness-free paint film. Support for this limitation is found on page 24, lines 27-32 and Table 3 on page 23 of Applicants' specification. Thus, no new matter has been added to the application by this amendment.

The patentability of the present invention over the disclosures of the references relied upon by the Examiner in rejecting the claims will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 1, 3-13 and 16-19 under 35 U.S.C. 103(a) as being unpatentable over Rink et al. in view of Marutani et al. and Ido et al., as well as the rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Rink et al., Marutani et al., and Ido et al. and further in view of Asahina et al. and Croft are respectfully traversed.

The Examiner admits that the cited prior art fails to explicitly recite the claimed temperature/ time, but he states that such a scheme would have been obvious to one of ordinary skill in the art. The Examiner states that the time and temperature of a paint curing process are, both individually and synergistically, well-known result-effective variables. Thus, the Examiner asserts that it would have been obvious to optimize the temperature/ time curing scheme by routine experimentation, absent unexpected results demonstrating the criticality of the claimed temperature/ time scheme.

Further, the Examiner states that Applicants' arguments regarding the difficulty for a skilled person in the art to develop a clear paint which meets the requirements, and the arguments that the clear paint unexpectedly results in reduction of energy consumption are unsupported by any evidence on the record. Thus, the Examiner takes the position that the claimed temperature/ time remains obvious over the cited art.

The Examiner is respectfully requested to reconsider the remarks set forth in the Amendment filed January 23, 2007, in view of the additional comments set forth below.

There is great technical significance of the curing temperature/ time as defined in Applicants' claim 1. It was by request from the production line of the coating of rigid

resin parts for motor vehicles (e.g., door mirrors, wheel caps, door handles, etc.) which is now being industrially performed, that the curing temperature/ time of the paint films were specified in Applicants' claim 1.

Portions of the following comments were set forth in Applicants' Amendment of January 23, 2007, but are restated below for the Examiner's convenience.

Applicants' specification on page 1, lines 17-32, reads as follows (emphasis added):

Paint film excelling in finish performance, paint film performance and paint stability can be provided by clear paint whose chief ingredients are acrylic resin and curing agent such as polyisocyanate and which is currently used for painting said rigid resin parts of motor vehicles.

Whereas, due to energy saving in painting line by low-temperature, short-time baking and productivity improvement by increased conveyor speed, recently the baking conditions (temperature-time) of rigid resin parts have changed from 60-70°C – 10-25 minutes, preferably 65-70°C – 15-20 minutes, from conventional 80-90°C – 40-60 minutes. Hence, development of clear paint which can form paint film showing good tack property (i.e., free of tackiness and does not retain fingerprints of persons who touch the film) and being baked under such conditions and left standing at room temperature and excelling in finish performance, film performance and paint stability is in demand.

The objective of the present invention was to present a clear paint which might meet the above-mentioned request from the production line of the coating of rigid resin parts for motor vehicles. Applicants have succeeded in achieving this objective by using clear paint which comprises a combination of the specific constituent components, as defined in Applicants' claim 1.

The prior art references cited by the Examiner fail to teach or suggest the above-mentioned objective of Applicants' invention, and fail to teach or suggest the means to obtain this objective.

As mentioned above, the Examiner states that Applicants' arguments regarding the difficulty of developing a clear paint with the desired characteristics (excellent finish performance, film performance and paint stability and good tack property) is unsupported

by evidence on the record. Accordingly, Applicants' enclose herewith a Rule 1.132 Declaration by Mr. Masami Suwama (an inventor of the present application) which demonstrates that the use of clear paint comprising the specific components defined in Applicants' claim 1 is critical in forming a paint film with the desired characteristics under the temperature/ time limitation recited in Applicants' claim 1.

Thus, Applicants have now provided evidence to support the assertion that it would be very difficult for one of ordinary skill in the art to develop a clear paint which has good tack property when cured at a temperature of 60-70°C for 10-25 minutes. The comparative experiments set forth in the enclosed Declaration demonstrate how critical it is to use a clear paint comprising the constituent components as defined in Applicants' claim 1 for the purpose of forming a tackiness-free paint film under the low temperature/ short time condition of 60-70°C for 10-25 minutes.

Additionally, the Examiner takes the position that the claims do not require that the clear paint be fully cured. However, Applicants have amended claim 1 to recite that the curing step is to form a tackiness-free paint film. MPEP 2173.05(g) states that a functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step. Therefore, the functional limitation that Applicants' recited curing step is to form a tackiness-free paint film must be considered when determining patentability.

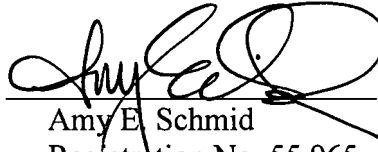
For the above reasons, Applicants' recitation of a particular temperature/ time scheme for the curing process, in combination with the recite constituent components is not obvious over the cited art. Thus, the invention of independent claim 1, and dependent claims 2-19 is clearly patentable over the cited prior art.

Therefore, in view of the above remarks, it is submitted that each of the grounds of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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